SEQUENCE LISTING

<110> Lewis, Hal A

<120> Crystals and Structures of Luxs

<130> 010342-0012-999

<150> 60/237,933

<151> 2000-10-03

<160> 13

<170> PatentIn version 3.1

<210> 1

<211> 152

<212> PRT

<213> H. Pylori

<400> 1

Met Lys Met Asn Val Glu Ser Phe Asn Leu Asp His Thr Lys Val Lys
1 5 10 15

Ala Pro Tyr Val Arg Ile Ala Asp Arg Lys Lys Gly Val Asn Gly Asp
20 25 30

Leu Ile Val Lys Tyr Asp Val Arg Phe Lys Gln Pro Asn Arg Asp His
35 40 45

Met Asp Met Pro Ser Leu His Ser Leu Glu His Leu Val Ala Glu Ile
50 55 60

Ile Arg Asn His Ala Asn Tyr Val Val Asp Trp Ser Pro Met Gly Cys
65 70 75 80

Gln Thr Gly Phe Tyr Leu Thr Val Leu Asn His Asp Asn Tyr Thr Glu
85 90 95

Ile Leu Glu Val Leu Glu Lys Thr Met Gln Asp Val Leu Lys Ala Lys
100 105 110

Glu Val Pro Ala Ser Asn Glu Lys Gln Cys Gly Trp Ala Ala Asn His
115 120 125

Thr Leu Glu Gly Ala Gln Asn Leu Ala Arg Ala Phe Leu Asp Lys Arg
130 135 140

Ala Glu Trp Ser Glu Val Gly Val
145 150

<210> 2

<211> 167

<212> PRT

<213> H. Influenzae

<400> 2

Met Pro Leu Leu Asp Ser Phe Lys Val Asp His Thr Lys Met Asn Ala
1 5 10 15

Pro Ala Val Arg Ile Ala Lys Thr Met Leu Thr Pro Lys Gly Asp Asn
20 25 30

Ile Thr Val Phe Asp Leu Arg Phe Cys Ile Pro Asn Lys Glu Ile Leu
35 40 45

Ser Pro Lys Gly Ile His Thr Leu Glu His Leu Phe Ala Gly Phe Met
50 55 60

Arg Asp His Leu Asn Gly Asp Ser Ile Glu Ile Ile Asp Ile Ser Pro
65 70 75 80

Met Gly Cys Arg Thr Gly Phe Tyr Met Ser Leu Ile Gly Thr Pro Asn
85 90 95

Glu Gln Lys Val Ser Glu Ala Trp Leu Ala Ser Met Gln Asp Val Leu
100 105 110

Gly Val Gln Asp Gln Ala Ser Ile Pro Glu Leu Asn Ile Tyr Gln Cys
115 120 125

Gly Ser Tyr Thr Glu His Ser Leu Glu Asp Ala His Glu Ile Ala Lys
130 135 140

Asn Val Ile Ala Arg Gly Ile Gly Val Asn Lys Asn Glu Asp Leu Ser
145 150 155 160

Leu Asp Asn Ser Leu Leu Lys
165

<210> 3

<211> 158

<212> PRT

<213> D. Radiodurans

<400> 3

Met Pro Asp Met Ala Asn Val Glu Ser Phe Asp Leu Asp His Thr Lys
1 5 10 15

Val Lys Ala Pro Tyr Val Arg Leu Ala Gly Val Lys Thr Thr Pro Lys
20 25 30

Gly Asp Gln Ile Ser Lys Tyr Asp Leu Arg Phe Leu Gln Pro Asn Gln
35 40 45

Gly Ala Ile Asp Pro Ala Ala Ile His Thr Leu Glu His Leu Leu Ala
50 55 60

Gly Tyr Met Arg Asp His Leu Glu Gly Val Val Asp Val Ser Pro Met
65 70 75 80

Gly Cys Arg Thr Gly Met Tyr Met Ala Val Ile Gly Glu Pro Asp Glu
85 90 95

Gln Gly Val Met Lys Ala Phe Glu Ala Ala Leu Lys Asp Thr Ala Gly
100 105 110

His Asp Gln Pro Ile Pro Gly Val Ser Glu Leu Glu Cys Gly Asn Tyr
115 120 125

Arg Asp His Asp Leu Ala Ala Ala Arg Gln His Ala Arg Asp Val Leu
130 135 140

Asp Gln Gly Leu Lys Val Gln Glu Thr Ile Leu Leu Glu Arg

145 150 155

<210> 4

<211> 164

<212> PRT

<213> C. Jejuni

<400> 4

Met Pro Leu Leu Asp Ser Phe Lys Val Asp His Thr Lys Met Pro Ala
1 5 10 15

Pro Ala Val Arg Leu Ala Lys Val Met Lys Thr Pro Lys Gly Asp Asp
20 25 30

Ile Ser Val Phe Asp Leu Arg Phe Cys Ile Pro Asn Lys Asp Ile Met
35 40 45

Ser Glu Lys Gly Thr His Thr Leu Glu His Leu Phe Ala Gly Phe Met
50 55 60

Arg Asp His Leu Asn Ser Asn Ser Val Glu Ile Ile Asp Ile Ser Pro
65 70 75 80

Met Gly Cys Arg Thr Gly Phe Tyr Met Ser Leu Ile Gly Thr Pro Asp
85 90 95

Glu Lys Ser Ile Ala Lys Ala Trp Glu Ala Ala Met Lys Asp Val Leu
100 105 110

Ser Val Ser Asp Gln Ser Lys Ile Pro Glu Leu Asn Ile Tyr Gln Cys
115 120 125

Gly Thr Cys Ala Met His Ser Leu Asp Glu Ala Lys Gln Ile Ala Gln
130 135 140

Lys Val Leu Asn Leu Gly Ile Ser Ile Ile Asn Asn Lys Arg Leu Lys
145 150 155 160

Leu Glu Asn Ala

<210> 5

<211> 157

<212> PRT

<213> B. Burgdorferi

<400> 5

Met Lys Lys Ile Thr Ser Phe Thr Ile Asp His Thr Lys Leu Asn Pro
1 5 10 15

Gly Ile Tyr Val Ser Arg Lys Asp Thr Phe Glu Asn Val Ile Phe Thr
20 25 30

Thr Ile Asp Ile Arg Ile Lys Ala Pro Asn Ile Glu Pro Ile Ile Glu
35 40 45

Asn Ala Ala Ile His Thr Ile Glu His Ile Gly Ala Thr Leu Leu Arg
50 55 60

Asn Asn Glu Val Trp Thr Glu Lys Ile Val Tyr Phe Gly Pro Met Gly
65 70 75 80

Cys Arg Thr Gly Phe Tyr Leu Ile Ile Phe Gly Asp Tyr Glu Ser Lys
85 90 95

Asp Leu Val Asp Leu Val Ser Trp Leu Phe Ser Glu Ile Val Asn Phe
100 105 110

Ser Glu Pro Ile Pro Gly Ala Ser Asp Lys Glu Cys Gly Asn Tyr Lys
115 120 125

Glu His Asn Leu Asp Met Ala Lys Tyr Glu Ser Ser Lys Tyr Leu Gln
130 135 140

Ile Leu Asn Asn Ile Lys Glu Glu Asn Leu Lys Tyr Pro
145 150 155

<210> 6

<211> 151

<212> PRT

<213> C. Perfringens

<400> 6

Met Val Lys Val Glu Ser Phe Glu Leu Asp His Thr Lys Val Lys Ala
1 5 10 15

Pro Tyr Val Arg Lys Ala Gly Ile Lys Ile Gly Pro Lys Gly Asp Ile
20 25 30

Val Ser Lys Phe Asp Leu Arg Phe Val Gln Pro Asn Lys Glu Leu Leu
35 40 45

Ser Asp Lys Gly Met His Thr Leu Glu His Phe Leu Ala Gly Phe Met
50 55 60

Arg Glu Lys Leu Asp Asp Val Ile Asp Ile Ser Pro Met Gly Cys Lys
65 70 75 80

Thr Gly Phe Tyr Leu Thr Ser Phe Gly Asp Ile Asp Val Lys Asp Ile
85 90 95

Ile Glu Ala Leu Glu Tyr Ser Leu Ser Lys Val Leu Glu Gln Glu Glu
100 105 110

Ile Pro Ala Ala Asn Glu Leu Gln Cys Gly Ser Ala Lys Leu His Ser
115 120 125

Leu Glu Leu Ala Lys Ser His Ala Lys Gln Val Leu Glu Asn Gly Ile
130 135 140

Ser Asp Lys Phe Tyr Val Glu
145 150

<210> 7

<211> 168

<212> PRT

<213> N. Meningitidis

<400> 7

Met Pro Leu Leu Asp Ser Phe Lys Val Asp His Thr Arg Met His Ala
1 5 10 15

Pro Ala Val Arg Val Ala Lys Thr Met Thr Thr Pro Lys Gly Asp Thr
20 25 30

Ile Thr Val Phe Asp Leu Arg Phe Cys Val Pro Asn Lys Glu Ile Leu
35 40 45

Pro Glu Lys Gly Ile His Thr Leu Glu His Leu Phe Ala Gly Phe Met

50 55 60

Arg Asp His Leu Asn Gly Asn Gly Val Glu Ile Ile Asp Ile Ser Pro
65 70 75 80

Met Gly Cys Arg Thr Gly Phe Tyr Met Ser Leu Ile Gly Thr Pro Ser
85 90 95

Glu Gln Gln Val Ala Asp Ala Trp Leu Ala Ser Met Gln Asp Val Leu
100 105 110

Asn Val Lys Asp Gln Ser Lys Ile Pro Glu Leu Asn Glu Tyr Gln Cys
115 120 125

Gly Thr Tyr Gln Met His Ser Leu Ala Glu Ala Gln Gln Ile Ala Gln
130 135 140

Asn Val Leu Ala Arg Lys Val Ala Val Asn Lys Asn Glu Glu Leu Thr
145 150 155 160

Leu Asp Glu Gly Leu Leu Asn Ala
165

<210> 8

<211> 171

<212> PRT

<213> S. Typhimurium

<400> 8

Met Pro Leu Leu Asp Ser Phe Ala Val Asp His Thr Arg Met Gln Ala
1 5 10 15

Pro Ala Val Arg Val Ala Lys Thr Met Asn Thr Pro His Gly Asp Ala
20 25 30

Ile Thr Val Phe Asp Leu Arg Phe Cys Ile Pro Asn Lys Glu Val Met
35 40 45

Pro Glu Lys Gly Ile His Thr Leu Glu His Leu Phe Ala Gly Phe Met
50 55 60

Arg Asp His Leu Asn Gly Asn Gly Val Glu Ile Ile Asp Ile Ser Pro
65 70 75 80

Met Gly Cys Arg Thr Gly Phe Tyr Met Ser Leu Ile Gly Thr Pro Asp
85 90 95

Glu Gln Arg Val Ala Asp Ala Trp Lys Ala Ala Met Ala Asp Val Leu
100 105 110

Lys Val Gln Asp Gln Asn Gln Ile Pro Glu Leu Asn Val Tyr Gln Cys
115 120 125

Gly Thr Tyr Gln Met His Ser Leu Ser Glu Ala Gln Asp Ile Ala Arg
130 135 140

His Ile Leu Glu Arg Asp Val Arg Val Asn Ser Asn Lys Glu Leu Ala
145 150 155 160

Leu Pro Lys Glu Lys Leu Gln Glu Leu His Ile
165 170

<210> 9

<211> 172

<212> PRT

<213> V. Harveyi

<400> 9

Met Pro Leu Leu Asp Ser Phe Thr Val Asp His Thr Arg Met Asn Ala
1 5 10 15

Pro Ala Val Arg Val Ala Lys Thr Met Gln Thr Pro Lys Gly Asp Thr
20 25 30

Ile Thr Val Phe Asp Leu Arg Phe Thr Ala Pro Asn Lys Asp Ile Leu
35 40 45

Ser Glu Lys Gly Ile His Thr Leu Glu His Leu Tyr Ala Gly Phe Met
50 55 60

Arg Asn His Leu Asn Gly Asp Ser Val Glu Ile Ile Asp Ile Ser Pro
65 70 75 80

Met Gly Cys Arg Thr Gly Phe Tyr Met Ser Leu Ile Gly Thr Pro Ser
85 90 95

Glu Gln Gln Val Ala Asp Ala Trp Ile Ala Ala Met Glu Asp Val Leu
100 105 110

Lys Val Glu Asn Gln Asn Lys Ile Pro Glu Leu Asn Glu Tyr Gln Cys
115 120 125

Gly Thr Ala Ala Met His Ser Leu Asp Glu Ala Lys Gln Ile Ala Lys
130 135 140

Asn Ile Leu Glu Val Gly Val Ala Val Asn Lys Asn Asp Glu Leu Ala
145 150 155 160

Leu Pro Glu Ser Met Leu Arg Glu Leu Arg Ile Asp
165 170

<210> 10

<211> 171

<212> PRT

<213> E. Coli

<400> 10

Met Pro Leu Leu Asp Ser Phe Thr Val Asp His Thr Arg Met Glu Ala
1 5 10 15

Pro Ala Val Arg Val Ala Lys Thr Met Asn Thr Pro His Gly Asp Ala
20 25 30

Ile Thr Val Phe Asp Leu Arg Phe Cys Val Pro Asn Lys Glu Val Met
35 40 45

Pro Glu Arg Gly Ile His Thr Leu Glu His Leu Phe Ala Gly Phe Met
50 55 60

Arg Asn His Leu Asn Gly Asn Gly Val Glu Ile Ile Asp Ile Ser Pro
65 70 75 80

Met Gly Cys Arg Thr Gly Phe Tyr Met Ser Leu Ile Gly Thr Pro Asp
85 90 95

Glu Gln Arg Val Ala Asp Ala Trp Lys Ala Ala Met Glu Asp Val Leu
100 105 110

Lys Val Gln Asp Gln Asn Gln Ile Pro Glu Leu Asn Val Tyr Gln Cys
115 120 125

Gly Thr Tyr Gln Met His Ser Leu Gln Glu Ala Gln Asp Ile Ala Arg

130 135 140

Ser Ile Leu Glu Arg Asp Val Arg Ile Asn Ser Asn Glu Glu Leu Ala
145 150 155 160

Leu Pro Lys Glu Lys Leu Gln Glu Leu His Ile
165 170

<210> 11

<211> 172

<212> PRT

<213> V. Cholera

<400> 11

Met Pro Leu Leu Asp Ser Phe Thr Val Asp His Thr Arg Met Asn Ala
1 5 10 15

Pro Ala Val Arg Val Ala Lys Thr Met Gln Thr Pro Lys Gly Asp Thr
20 25 30

Ile Thr Val Phe Asp Leu Arg Thr Met Gln Pro Lys Asp Ile Leu Ser
35 40 45

Glu Arg Gly Ala Ile His Thr Leu Glu His Tyr Leu Ala Phe Tyr Met
50 55 60

Arg Asn His Leu Asn Gly Ser Gln Val Glu Ile Ile Asp Ile Ser Pro
65 70 75 80

Met Gly Cys Arg Thr Gly Phe Tyr Met Ser Leu Ile Gly Ala Pro Thr
85 90 95

Glu Gln Gln Val Ala Gln Ala Trp Leu Ala Ala Met Gln Asp Val Leu
100 105 110

Lys Val Glu Ser Gln Glu Gln Ile Pro Glu Leu Asn Glu Tyr Gln Cys
115 120 125

Gly Thr Ala Ala Met His Ser Leu Glu Glu Ala Lys Ala Ile Ala Lys
130 135 140

Asn Val Ile Ala Ala Gly Ile Ser Val Asn Arg Asn Asp Glu Leu Ala
145 150 155 160

Leu Pro Glu Ser Met Leu Asn Glu Leu Lys Val His
165 170

<210> 12

<211> 231

<212> PRT

<213> B. Subtilis

<400> 12

Met Pro Ser Val Glu Ser Phe Glu Leu Asp His Asn Ala Val Val Ala
1 5 10 15

Pro Tyr Val Arg His Cys Gly Val His Lys Val Gly Thr Asp Gly Val
20 25 30

Val Asn Lys Phe Asp Ile Arg Phe Cys Gln Pro Asn Lys Gln Ala Met
35 40 45

Lys Pro Asp Thr Ile His Thr Leu Glu His Leu Leu Ala Phe Thr Ile
50 55 60

Arg Ser His Ala Glu Lys Tyr Asp His Phe Asp Ile Ile Asp Ile Ser
65 70 75 80

Pro Met Gly Cys Gln Thr Gly Tyr Tyr Leu Val Val Ser Gly Glu Pro
85 90 95

Thr Ser Ala Glu Ile Val Asp Leu Leu Glu Asp Thr Met Lys Glu Ala
100 105 110

Val Glu Ile Thr Glu Ile Pro Ala Ala Asn Glu Lys Gln Cys Gly Gln
115 120 125

Ala Lys Leu His Asp Leu Glu Gly Ala Lys Arg Leu Met Arg Phe Trp
130 135 140

Leu Ser Gln Asp Lys Glu Glu Leu Ile Lys Val Phe Gly Gln Thr Gly
145 150 155 160

Phe Tyr Leu Ile Met Ser Gly Lys Pro Thr Val Glu Glu Ile Ile Asp
165 170 175

Val Leu Glu Gln Thr Met Lys Tyr Ser Leu Glu Leu Glu Glu Val Pro
180 185 190

Ala Ala Asn Glu Lys Gln Cys Gly Gln Ala Lys Leu His Asp Leu Asp
195 200 205

Gly Ala Lys Lys Leu Met Thr Tyr Trp Leu Ser His Glu Lys Asp Ser
210 215 220

Leu Thr Lys Val Phe Glu Ser
225 230

<210> 13

<211> 84

<212> PRT

<213> B. Halodurans

<400> 13

Met Pro Thr Val Glu Ser Phe Glu Leu Asp His Thr Ile Val Lys Ala
1 5 10 15

Pro Phe Val Arg Pro Cys Gly Thr His Lys Val Gly Thr Asn Gly Glu
20 25 30

Val Asn Lys Phe Asp Ile Arg Phe Phe Gln Pro Asn Lys Gln Ala Met
35 40 45

Lys Pro Asp Val Ile His Thr Leu Glu His Leu Leu Ala Leu Asn Ile
50 55 60

Arg Lys Phe Ala Glu Ala Tyr Asp His Phe Asp Val Ile Asp Leu Ser
65 70 75 80

Pro Met Gly Cys